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CHEMICAL & ENGINEERING

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News Focus

Health care costs are soaring, and chemical companies are joining other corporations in finding ways to reduce medical benefits to employees. **Page 6**

Chemical Firms' Health Care Plans Getting Face Lift

With the cost of health care soaring, chemical companies are instituting medical benefits programs that often require employees to carry more of the financial burden

David Webber, C&EN New York

"Starting May 1, 1983, a smarter . . . more cost-conscious program." So salaried employees of B. F. Goodrich read on the cover of a glossy brochure mailed them earlier this year. Inside they learned that Goodrich, which says its health care costs have more than tripled in the past 10 years, was changing its health care plan.

No longer would the company cover medical expenses from the first dollar on. Instead, employees, through deductibles and other measures, would pay a larger share. "The new program will help us reshape our attitudes about using health care services in the future," the brochure went on to say. "This new awareness will cause us to become smarter, more cost-conscious health care consumers."

Messages like this have gone out to employees of chemical companies and other corporations with increasing frequency over the past year. Probably more than half of the biggest companies nationwide have reacted to rapidly rising health care costs by altering their medical benefits plans to make employees share more of the cost. And many more firms are actively considering doing so.

What is happening is nothing less than a major reversal in a corporate current that has been moving in one direction for the past quarter century. Health care plans, which have steadily broadened in scope and have long been considered one of the most sacrosanct of corporate fringe benefits, are now the primary target of a broad corporate assault on costs. A watershed seems to have been reached, convincing top executives—who a few years ago left benefits administration to mostly low-level managers—that their fringe benefits programs need a trimming. "The fringe binge," declares an employee benefits consultant, "is over."

The past year has seen a mobilization of employers in the form of local and regional business coalitions and national organizations like the Business Roundtable. Prominent chemical industry spokesmen like former Du

Pont chairman Irving S. Shapiro, Goodrich chairman John D. Ong, and others have begun speaking widely on the subject.

"Can we afford \$1 trillion for health care?" former Secretary of Health, Education & Welfare Joseph A. Califano Jr. asked in a speech to the Economic Club of Detroit in April. Califano went on to predict that the nation's health care bill of \$321 billion in 1982 (\$77 billion of that in corporate health insurance premiums) would climb that high over the next 10 years if changes were not made. "With inflation increasingly coming under control as consumer and wholesale price indices level off," he said, "health care stands out as the single most inflationary factor in the U.S. economy today."

Indeed, the consumer price index (CPI) for all medical care items, which stood at a manageable 106% of the CPI for all items in 1972, had shot up to 114% of the major measure of inflation by 1982. According to a forecast made by the New York City benefits consulting firm Towers, Perrin, Forster & Crosby (TPFC), the medical care index could be as much as 129% of the general CPI by 1984. Even more telling is the index for hospital room costs. Already running at 139% of the general CPI in 1972, the hospital room index was up to 193% in 1982, and, the firm predicts, could rise to as much as 225% of the general CPI in 1984.

Critics of the current health care system insist that this condition can be cured. Medical costs inflate faster than the overall economy, they contend, because health care service operates outside the competitive market system. Hospitals charge on a cost-plus basis, and doctors on a fee-for-service basis. "Thus," says Califano, now a director at Chrysler Corp., "the more hospitals spend, the more they receive. The more services doctors perform, the more money they make."

The situation is particularly vexing to business people used to thinking in terms of supply and demand. Even as medical cost inflation is accelerating, hospital bed occupancy rates around the country range from only 60 to 80%. That spells overcapacity, but instead of re-



Air Products employees are encouraged to jog to better health as part of the company's wellness program

sponding as a normal business should by cutting prices, critics say, hospitals simply schedule more services to bring in the necessary income. There is thus a structural incentive, critics say, for the performance of, at worst, unnecessary work and, at best, work that could be done far more inexpensively outside the hospital.

"There are too many hospital beds and too many doctors," remarks David L. Glueck, a vice president at TPF. "That's the perversity of the health care system: Excess supply means higher prices."

Statistics seem to bear out much of this criticism. In 1950, for instance, the rate of hospital admissions in the U.S. was just 111.4 per 1000 people. But the rate of admissions has been rising steadily since then and accelerated during the 1970s (spurred to a certain extent, no doubt, by the surge in malpractice suits in those years). In 1980, 165.8 people per 1000 population checked into a hospital during the year.

The central argument of corporate employee benefits administrators is that cost efficiency could be attained in the health care system by bringing doctors and hospitals more into the competitive economy. That, plan administrators say, depends on shaping employees into, as the Goodrich brochure puts it, "cost-conscious health care consumers." And that, the argument continues, will happen only when employees have to take more money out of their own pockets to pay for their medical care.

The implication that a good deal of the nation's current health care mess can be laid to a kind of employee profligacy is a corporate view that has proved predictably nettling to many, especially those who contend that one doesn't have the choices of a consumer when it comes to medical care.

"We don't believe in this company philosophy that workers are to blame for the high costs of medical care, that the reason costs are so high is because workers are using [medical care services] too much," declares Jerry Archuleta, a spokesman for the Oil, Chemical & Atomic Workers International Union. "Workers don't have any choice. Nobody goes to the doctor until he is quite ill, and then the decision is out of his hands."

But defenders of more cost-sharing have evidence to support at least part of their argument, notably from the preliminary results of a study by Rand Corp. A long-term survey of 7706 people representing a variety of insurance plans with different levels of deductibles and coinsurance (the ratio at which the insurer and the insured share expenses after the exhaustion of the deductible) found that people who are covered in full for medical services spend as much as 60% more than do people who pay coinsurance.

The idea that modifying employee behavior in health care consumption can have more than short-term consequences is both the crux of corporate thinking on the subject and the best means employers have to persuade employees that cost sharing is for their own good. Forcing employees to pay more of their medical expenses is more than just a way to buffer the employer's bottom line, companies say. Ultimately, it is a way to bring down health care costs overall.

The second half of the argument is not provable yet, of course, and companies changing their benefits plans realize they can hardly hope to do so without encountering a good deal of white-collar disgruntlement and blue-collar distrust. In fact, despite the great number of companies transferring out-of-pocket expenses back to employees, many benefits consultants point out, the scale of the costs involved is relatively small, and in many cases companies are adding new benefits as compensation of a kind for those taken away.

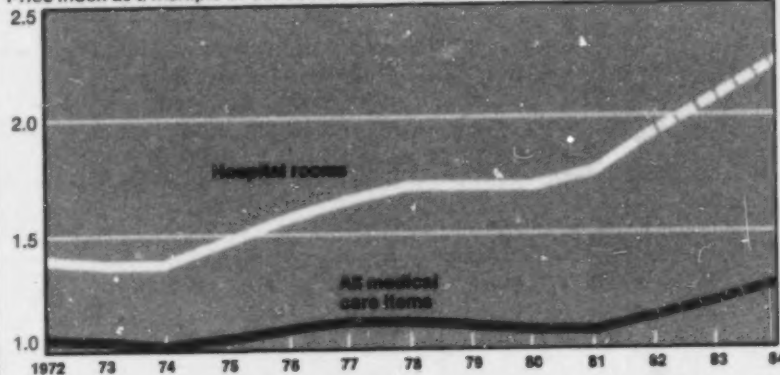
Still, chemical companies are finding that employee benefits have become such a big ticket item that they are beginning to have a direct effect on the bottom line. Hercules, for instance, which is activating a new health care plan July 1, says that with the old plan, its 1983 contributions to employee health care probably would be some 23% higher than the 1982 bill, instead of the 15 to 18% to which it now hopes to limit the increase. In 1970, a Hercules spokesman says, the company's health care expenses totaled \$5.5 million. In 1982, the company spent \$23 million. Without its new cost-sharing plan, Hercules forecasts it would be spending \$152 million in 1992. Even so, it expects a bill of about \$86 million that year.

And Du Pont, which gradually began introducing its new health care plan at company facilities around the country 15 months ago, reports that its expenditures for providing basic medical coverage to employees, pensioners, dependents, and survivors rose from \$32 million in 1970 to \$156 million in 1982. Only the company's tenth most expensive benefit in the mid-1960s, health care now ranks third behind vacations and pensions.

Employees of the chemical industry have long had the reputation of being very well treated when it comes to benefits. The majority of chemical company health in-

Inflation in medical care is greater than general inflation

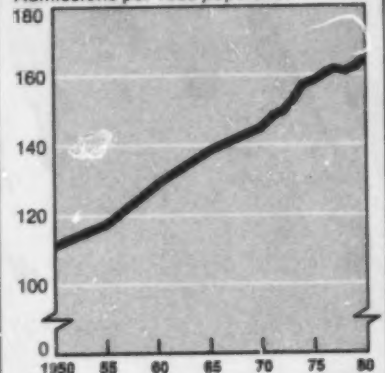
Price Index as a multiple of Consumer Price Index



Sources: Department of Commerce; Towers, Perrin, Forster & Crosby

Hospital admissions have risen steadily

Admissions per 1000 population



Note: Data refer to civilian, noninstitutional population. Sources: American Hospital Association, Health Insurance Association of America

insurance plans have been the traditional combination of basic and major medical coverage, along the lines of Blue Cross and Blue Shield. Employee premiums, when they have been levied (more frequently to hourly than to salaried employees), have been low. So have been deductibles when they existed. First-dollar coverage has been common, and coinsurance relatively rare.

Among the new plans now evolving, certain basic similarities can be discerned. Deductibles are either imposed for the first time or raised to a higher level. Coinsurance is set or maintained at an 80/20 insurer-to-insured ratio for most nonelective medical procedures, and, in some cases, set at a 50/50 ratio for some elective services. At the same time, companies have instituted out-of-pocket limits, also called stop-loss provisions, in cases when coinsurance applies. With a stop-loss provision, an employee's out-of-pocket expenses in a given year are limited to a set total of his or her deductible plus copayments.

The other element common to most revamped plans is a package of financial incentives to use alternatives to inpatient medical care when possible. Under most new programs, an employee has more coverage for many forms of testing, minor surgery, and emergency treatment when they are performed on an outpatient basis. Companies are particularly urging second and even third opinions on the need for nonemergency surgery and the use of preadmission testing on an outpatient basis just before a hospital stay.

The two basic goals of all the new plans are to pass some of the losses back to the employee and to steer the employee into using cheaper coverage when possible. Where these fundamental similarities end, however, a great deal of diversity begins.

The new Hercules health care plan, for example, dispenses with the traditional insurance categories and divides its coverage into three groups based on cost-sharing ratios. The old first-dollar coverage is reserved mostly for the kinds of services whose use the company

encourages as an alternative to more expensive hospital care or as preventive measures likely to improve health. These include preadmission testing, outpatient surgery and emergency care, home health care in place of hospitalization, "well" baby care, immunizations, annual Pap smear, and hospice charges.

Most of the rest of the Hercules coverage is on an 80/20 coinsurance basis. After an annual \$200 individual or \$400 family cash deductible, the company pays 80% of expenses for such services as hospital room and board, inpatient physician, anesthesia, drugs, birthing centers, convalescent facilities, chiropractic, addiction rehabilitation, and home health care. There is a stop-loss provision at \$1000 (in addition to the deductible).

As new plans go, the Hercules program is simple in format. More complex, because it offers a number of cost-sharing options, is Goodrich's new health care benefits plan. Under the variations, an employee's annual premium rises or falls in inverse proportion to the amount of risk he or she assumes. A single employee willing to accept the plan's highest deductible and copayment limit—\$400 and \$1000, respectively—pays no premium. At the other end of the scale, a single employee can cut the deductible to just \$100 and the annual copayment limit to \$400 by paying a premium.

In addition, the Goodrich plan offers employees another option, one that is gaining increasing acceptance among companies—health maintenance organizations (HMOs). In place of normal insurance coverage, an employee can enroll in an HMO, which provides all necessary health care services on a first-dollar basis for a fixed premium. To employers, the attraction of the HMO is the fixed premium; to employees, the lack of deductible and, theoretically, unlimited access to service. But there still are relatively few HMOs in the U.S., so only some employees can take this option.

Plans like Goodrich's put employees "in charge" of their health care expenses by offering them the incentive to keep them down. If employees are healthy and believe

Most chemical companies are revamping health care benefits

Statistical evidence on trends in health care cost containment is scanty, but what exists suggests that the chemical industry is moving to revise employee health care benefits at least as fast as, if not faster than, the rest of the U.S. business community.

A C&EN survey this month of the 30 largest firms (in terms of chemical sales) shows a high level of concern about health care costs in the industry. For example, when asked (Question #1) by what per cent each company's contribution to employee health care was expected to rise from 1982 to 1983, the median response was about 16%. C&EN also asked each company (Question #2) whether it had developed a new health care cost management strategy in the past two years, or was planning to do so soon. Of the 28 firms that answered, 16 had recently changed plans and seven were planning to do so in the near future. Other survey questions touched on the specifics of the new employee health care plans: (Question #3) Had the company raised employee deductibles and/or raised the employee share in coinsurance?; (Question #4) Were there options in the plan (could employees choose a lower deductible by paying a higher premium, for example?); and (Question #5) Did the new plan apply to all employees?

The responses seem to place the chemical industry in the vanguard of the nationwide business attack on health care cost inflation. When William M. Mercer Inc., a unit of Marsh & McLennan, asked 1420 U.S. firms similar questions last year, it learned that only 30.6% of those that replied had implemented new health care cost management strategies. Among the biggest companies (over 50,000 employees), however, 56.3% had new plans, more in line with the C&EN survey results.

It also seems clear that the chemical industry's activities to control health care costs have mushroomed very recently. Only last summer, when the management consulting firm Towers, Perrin, Forster & Crosby conducted a survey on health cost containment, the chemical industry appeared much less enthusiastic. When asked about in-

creases in deductibles and other changes, 12% or fewer of the chemical companies replied that they had made any. Only 16 to 44% said they might do so. The rest doubted they ever would.

The C&EN survey suggests, among other things, that those doubters may be becoming believers. Following are the responses to the C&EN survey:

Company	Question 1	Question 2	Question 3	Question 4	Question 5
Air Products	15%	No	DA	DA	DA
Allied	18	Yes	Deductible	No	Salaried only
American Cyanamid	NA	Consider	DA	DA	DA
American Hoechst	10-15	No	No	DA	DA
Ashland Oil	10	No	DA	DA	DA
Atlantic Richfield	15-25	Yes	DA	DA	DA
Borden	7-13	Yes	Both	No	All salaried, some union
Ciba-Geigy	NA	Yes	NA	NA	NA
Dow Chemical	17	Yes	Both	No	All
Du Pont	NA	Yes	Both	Yes	All
Eastman Kodak	NA	Yes	NA	Yes	All
Ethyl	15-20	Yes	Deductible	No	Salaried only
Exxon Chemical	9.4	Yes	Both	Yes	NA
W. R. Grace	15-18	Yes	Both	No	Salaried only
Gulf Oil	9.7	Yes	Both	No	Most salaried, some union
Hercules	15-18	Yes	Both	No	All nonunion, some union
Mobay	15-18	Plans to	DA	DA	DA
Mobil	17	Consider	Deductible	No	All
Monsanto	12	Yes	Not yet	DA	DA
Occidental Petroleum	15	1984	Both in 1984	No	Salaried only
Phillips Petroleum	20	Consider	Both	No	All
Roim & Haas	8-15	Yes	Both	Yes	All, except some union
Shell Oil	NA	Yes	Both	No	All
Standard Oil (Ind.)	20	Yes	Deductible	No	All salaried, most hourly
Stauffer Chemical	15-18	Yes	Both	No	All salaried, some union
Texaco	NA	Consider	Deductible	Yes	All
Union Carbide	15	Yes	No	DA	DA

NA = No answer. DA = Doesn't apply. Note: In Question 5, "some union" generally means that companies are implementing new plans with unions as contracts come up for renegotiation. Union Oil declined to answer the survey questions because labor negotiations are in progress. Celanese and FMC declined to answer any questions.

they can limit their utilization of medical services, they can choose a plan option with a low or zero premium. In addition, Goodrich sweetens the pot with a reimbursement account, an innovation that is becoming increasingly common. Reimbursement accounts give each employee a health care "bank." At Goodrich, it totals \$300. The company withdraws the employee's premium from the account, and the employee can apply what remains to deductibles, copayments, and certain services

not covered by the health plan (typically dental and vision care). In most cases, if there is money left in the reimbursement account at the end of the year, the employee receives it as a cash payout.

"The company is betting that a reimbursement account will make an employee smarter about health care utilization," comments Dean Sontag, a consultant specializing in health care cost containment at Hewitt Associates, a Chicago benefits consulting firm.

Du Pont, with an eye to employee relations, offers an even more flexible option. Employees can choose traditional basic and major medical coverage on a contributory basis. Coverage is mostly from the first dollar on. Cost sharing is fundamentally limited to a \$200 deductible on major medical and to 20% of hospitalization charges after 365 days. Under Du Pont's "Different Option" plan, there is less first-dollar coverage, a \$200 deductible is in effect for some services, and only 90% of hospital room charges are paid. On the other hand, there is no premium, hospital room coverage remains at 90% for an unlimited time, and there is an out-of-pocket limit of \$1000 per patient.

Both Du Pont plans include provisions that encourage the use of extended-care facilities, home health care agencies, hospice services, birth clinics, outpatient testing, and second surgical opinions. In addition, the "Different Option" gives more coverage—up to \$1 million per year—than the traditional plan, which has a lifetime maximum of \$250,000.

The Hercules, Goodrich, and Du Pont plans provide a good sample of the range of revised health care benefits that are emerging in the chemical industry today. Typically, the amounts of money involved in deductibles and copayments are relatively small. In plans with reimbursement accounts, much of an employee's cost sharing may end up being returned anyway. Clearly, chemical companies are interested in changing the way their employees utilize health care services. What is not yet clear, however, is which alternative medical services will actually cost less and reduce health care costs in the long run.

Most problematic to companies considering alternative coverage are HMOs. Proponents of HMOs say that because such operations must provide all necessary health care for a fixed price, they have a strong incentive to operate efficiently by performing only those services that really must be done. If there are enough HMOs,

they eventually become a cheaper alternative to hospitals for many services.

"We favor the approach of introducing competition into the health care system," says Kathy Lewis, director of the consulting division of InterStudy, a nonprofit research and policy group in Minneapolis. "And we think HMOs are the way of doing that."

But HMOs have their detractors, too. There were only 269 HMOs nationwide at the beginning of this year with enrollment of just 11.6 million people, according to a census conducted by InterStudy. Except in a few locations like Minneapolis, they are so scattered that they cannot accommodate enough of the patient market to apply much competitive pressure to hospitals.

"HMOs appear to be a valid strategy where there are many of them," says Hewitt's Sontag. In the Minneapolis/St. Paul area, he notes, HMOs serve about 27% of the employed patient population. "Health care costs there are less than overall medical inflation in the U.S., so where there is a broad base, there is success."

"HMOs are playing an increasing role in health care," remarks TPFC's Glueck, "but the jury is still out on how effective they are at keeping costs down."

Most HMOs are of such recent vintage that many analysts believe it is still too early to determine whether they will be able to keep their premiums the same as or lower than those of traditional indemnity plans. In a 1982 survey of 240 employers that offer HMOs, Hay Management Consultants, a Philadelphia health benefits consulting firm, found some 35% of the companies said the administrative cost of their HMO was less than that of their indemnity plan. About 39% said they were about the same. Only 14% say HMOs cost more. But InterStudy reports that the average HMO premium of \$150.98 for a family in mid-1982 was up 14.3% from 1981, compared to a rise in the medical cost component of the CPI of 12% during that period.

HMOs need membership to keep costs down and to

Key terms in the health care debate

Coinurance. A policy provision frequently found in major medical insurance by which both the insured person and the insurer share the covered losses under a policy in a specified ratio, for example, 80% by the insurer and 20% by the insured. Coinsurance payments (copayments) usually begin after a deductible is exhausted.

Comprehensive medical insurance. A policy designed to give the protection offered by both a basic and a major medical health insurance policy. It is characterized by a low deductible amount, a coinsurance feature, and high maximum benefits.

Deductible. The amount of covered charges incurred by the protected per-

son which must be assumed or paid by the insured before benefits by the insurance company become payable.

Health maintenance organization (HMO). An organization that provides a wide range of comprehensive health care services for a specified group at a fixed periodic payment.

Preferred provider organization (PPO). An organization formed by employers, insurance companies, hospitals, doctors, or doctor groups in which a specified portion of the medical community contracts to provide services on a controlled basis. Services frequently are discounted, and utilization review is common.

Reimbursement account. An account

typically totaling several hundred dollars established by an employer for employees under a comprehensive insurance plan. Employees can draw the account toward deductibles, copayments, or eligible medical services not covered by the health care plan.

Stop-loss provision. A limit to an employee's annual out-of-pocket expenses, generally a combination of deductible and copayments, after which the insurer begins paying 100% of expenses.

Wellness programs. Company-sponsored health promotion programs, typically consisting of various forms of health-related counseling and instruction and physical fitness activities.



Glueck (far left) of Towers, Perrin, Forster & Crosby says "the jury is still out" on the question of how effective health maintenance organizations (HMOs) are at keeping health care costs down. Carter of Hay/Huggins, however, is pessimistic about the future viability of HMOs in the U.S.

prosper over time, but some analysts believe their growth potential is limited because most of their services generally are offered in a clinic.

"HMOs have a low participation rate, so they can't make much of a dent in overall health care costs, and that's because they're not yet accepted by the American public," says Michael F. Carter, a vice president of Hay/Huggins, the benefits consulting division of Hay Management Consultants. "I don't think HMOs will bring down costs in the long run. Americans don't have the HMO mentality. They don't trust the clinic concept."

But even as a number of analysts are beginning to think the impact of HMOs on the health care system ultimately will be limited, a new alternative is emerging: the preferred provider organization (PPO). These are organizations formed between employers, insurance companies, hospitals, or doctors' groups in which a specific portion of the medical community contracts to provide services on a controlled basis. In many cases, discounts are offered because large employers can use their employee population as market leverage. Even more important, analysts point out, the medical community guarantees it will meet agreed-on standards for efficiency and utilization of services.

The major differences between PPOs and HMOs are, first, that PPOs operate on a fee-per-service basis, and, second, that they do not operate as clinics. Patients go to see whichever doctor they prefer in a normal office setting, as long as the doctor is part of the PPO. Companies steer employees toward preferred providers through incentives. A medical plan might pay 100% of fees for services through a PPO, say, but only 80% of fees for the same services elsewhere.

The idea of PPOs appeals to many companies, in theory at least, because they are a more direct way of putting health care on a competitive basis. Insurers can "cut deals." But the problem with PPOs is that there are

so few of them. "Only large employers have the clout to do it," remarks Hay/Huggins' Carter. "That's why there are only a handful of them."

In the end, employers realize that there probably is a limit to how much they can control losses by prodding employees to use less-expensive services. Most companies with new health care plans say their goal is merely to hold cost increases down to the level of overall inflation. But type of service is only one of the variables open to manipulation. The other is the very health of the employees. The argument is simple: If employees get sick less, they will use medical services less.

"Although it seems simplistic, the reason for rising health care costs, at the most basic level, is that our employees and their dependents get sick," says Denise Maleska, head of the task force that designed Ciba-Geigy's new health care benefits plan. "Based on our task force studies, we concluded that if we could work toward improved employee and family health, we would be able to slow health care cost escalation. Cost containment measures alone have an immediate effect, but they won't change long-standing lifestyle factors that cause most serious illnesses."

The strategy at Ciba-Geigy and elsewhere is the "wellness" program, a catchall term for a variety of measures taken to promote employee health. Wellness programs typically consist of various forms of health-related counseling and instruction, and, in fewer cases, physical fitness programs. Ciba-Geigy, for instance, offers employees newsletters on health and lectures directed at smoking, hypertension, stress management, weight control, and others. In addition, the company is sponsoring 10-week courses in physical fitness and aerobic dancing.

Air Products also runs a varied wellness program that stresses weight control and quitting smoking, according to Lloyd Tepper, corporate medical director. Other programs include stress management and back

strengthening. There is also a loosely defined physical fitness program consisting of some aerobic dance classes and encouragement for joggers.

Tepper believes that the value of a wellness program goes beyond the number of employees who actually participate in it. "We feel strongly about programs like running," he says, "because it does a lot even for those who don't run. There is peer pressure and cross-fertilization of attitudes toward fitness. It becomes part of the company culture to have a spring in your step."

The problem with wellness programs is that it is nearly impossible to quantify their effectiveness. "You can't measure the results," Tepper says, "so you piggyback on the evidence of other studies. For the benefits of smoking cessation, for example, there is solid evidence. And counseling on substance abuse [alcoholism and drug abuse] clearly pays for itself. You can measure that in terms of absenteeism and the consumption of health care benefits."

"We recommend [wellness programs]," says Hay/Huggins' Carter, "but they're not to be done in a half-hearted way. That would be a waste of time and money. They need to be coordinated and convenient."

Even supporters of wellness programs like Carter, however, caution that a company's expectations must be moderate. At one of Hay/Huggins' client companies, for example, about 25% of the employees joined an exercise program. About half of them responded to a survey that they would have been exercising anyway without the company program, so the consulting firm figures that, at best, some 10 to 15% of the company's employees' behavior was changed for the better.

It is difficult to convince many analysts that the expense involved in organizing counseling and setting up a gymnasium is justifiable. "It's up in the air," remarks Hewitt's Sontag. "A full-blown program could cost more than the actual savings." And TPFC's Glueck attacks even stop-smoking programs. "The recidivism rate is in excess of 90%," he declares. "It's nothing but window dressing."

Sontag and Glueck concede, however, that there is probably a certain useful propaganda value to wellness programs. "Engendering a wellness philosophy in an organization will eventually pay off," Sontag says.

At the same time that they are revamping in-house programs, chemical companies and others are also vigorously taking their message to hospitals, doctors, and the government. The past few years have seen an explosion of employer health coalitions on the local, regional, and national levels, all of them jawboning the medical community and lobbying legislatures. At the top of the heap is the Washington Business Group on Health, a lobbying group representing 200 major companies. The Business Roundtable has a task force on health with state chapters. And chemical companies belong to an increasing number of associations based in major cities.

Monsanto, for instance, participates in a business health coalition in St. Louis. Like many other such groups, the St. Louis coalition has concentrated on convincing doctors to accept practices that will reduce costs. "Most of the initial efforts of the coalition have been to work out an agreement with the medical and

hospital associations and the local professional service review organization to make private-sector hospital utilization review available in the community," says Robert N. Abercrombie, Monsanto's manager of benefits operations.

Atlantic Richfield Corp. belongs to the Employers Health Care Coalition of Los Angeles, one of 10 such coalitions in California. The Los Angeles group has a long list of objectives related directly to the medical community. Primarily, it would like to get hospitals to agree to utilization review by local physicians and to consider preadmission certification, retrospective reviews of hospital use through the analysis of employee health data, and the use of claims data to identify providers who appear to be providing services inefficiently, among other objectives. In addition, the coalition would negotiate discounts with hospitals where increased volume warrants it.

Legislatively, coalitions have immediate worries. The tax-capping bills before Congress would limit the amount of money spent on employee health benefits that companies could write off their taxes. And in California last year, employer health care coalitions had their hands full helping fight attempts by the California Medical Association to kill a fledgling law allowing the private sector to contract for health care with PPOs.

The California Medical Association's antagonism to that legislation is an example of the ambiguous relationship of the medical community to this mushrooming national business health care movement. The American Medical Association (AMA) officially supports health care coalitions whose objective is to restrain health care cost inflation. According to a spokesman, AMA even accepts the general premise that health care services would be better for competition.

"Admitting competition is just a recognition of reality," a spokesman says. "AMA is trying to assist physicians to be competitive by being more efficient."

But the doctors' group remains profoundly uneasy with anything that even suggests socialized medicine. That is why the California chapter opposed the PPO bill and why AMA as a whole is ambivalent toward some of the innovations businesses are now proposing.

For employees of chemical companies, this year's and the recent past's round of health care benefit cutbacks is probably just a faint sign of things to come. Analysts point out that in most cases, cost-sharing provisions are quite small. Instead of deductibles averaging \$100 to \$200, they say, companies should have gone to \$500. And they will, the analysts predict, as soon as they find a way to do it without rupturing employee relations.

And retrenchment in medical care may signal an eventual turn toward retrenchment on other employee benefits. Health care benefits costs, after all, are the most egregious case. The most expensive benefits are pensions, another long-time sacred cow that, analysts warn, could very well be the next benefit to be reconsidered by employers.

"Companies now are focusing on health care costs because they are out of control," says Hay/Huggins' Carter. "The reality is that the others are out of control, too. They will stand some hard looking at." □

Profitability Plummet at U.S. Chemical Companies

Profit margins and return on investment, assets, and equity all declined last year from 1981; specialty firms continue to top profitability rankings

William J. Storck, C&EN New York

Along with practically every other financial measure, profitability among U.S. chemical companies suffered in 1982 as the recession dug deeper and deeper into operations. Rates of return for the industry and indeed for most companies dropped sharply last year compared with 1981.

In a survey of 36 U.S. chemical companies, C&EN found that profit margins (net earnings as a percentage of sales) dropped to 4.1% last year

from 5.6% the year before. Return on investment (net income as a percentage of current assets plus gross plant) fell to 3.1% in 1982 from 4.8% in 1981. Return on assets (net income as a percentage of total assets) dropped to 4.1% from 6.2%. And return on equity (net income as a percentage of year-end stockholders' equity) fell to an average of 8.5% from 13.4% in 1981.

As in previous years, companies with more narrowly focused and higher value-added product lines dominated the top profitability rankings.

However, unlike previous years, fertilizer-dominated companies did not rank particularly high in any of the rankings, except for profit margins, as the fertilizer business cycle seems to have run its course. This decline appears to have started in 1981, when only one fertilizer pro-

The top companies in overall profitability

- 1 International Flavors
- 2 Nalco Chemical
- 3 Petrolite
- 4 Chemed
- 5 Great Lakes Chemical
- 6 First Mississippi
- 7 Loctite
- 8 International Minerals
- 9 W. R. Grace
- 10 Freeport-McMoRan
- 10 Lubrizol

ducer, Freeport-McMoRan, was able to take a first place, in profit margin. In 1982, however, the best that the fertilizer companies could do was a second place—again, it was Freeport—in profit margin. However, Freeport's other profitability rankings were low enough to drop it to

Profit margins at U.S. chemical companies fell to 4.1% in 1982

Rank ^a			Profit margin ^b			Rank ^a			Profit margin ^b	
1982	1981		1982	1981		1982	1981		1982	1981
1	2	International Flavors	14.1%	14.7%		19	35	Stapan Chemical	4.4	3.2
2	1	Freeport-McMoRan	12.0	19.1		20	20	FMC	4.3	5.2
3	9	First Mississippi	10.4	8.3		20	13	National Distillers	4.3	6.7
4	3	Nalco Chemical	10.0	12.2		22	28	Essex Chemical	4.0	4.7
5	7	Petrolite	9.7	9.4		23	18	American Cyanamid	3.8	5.4
6	4	Great Lakes Chemical	9.4	11.7		24	23	Hercules	3.5	5.0
7	11	International Minerals	7.8	7.7		24	29	Olin	3.5	4.6
8	6	Stauffer Chemical	7.7	8.7		26	14	Union Carbide	3.4	6.4
9	25	Loctite	7.3	4.9		27	27	Dow Chemical	3.2	4.8
10	10	Air Products	6.8	8.0		28	30	H. B. Fuller	2.6	4.1
11	6	Chemed	6.7	10.0		28	32	Pennwalt	2.6	3.5
12	12	Liquid Air	6.1	7.4		30	36	Witco Chemical	2.3	3.0
13	5	Lubrizol	5.9	10.2		31	40	GAF	2.0	def
14	20	Ethyl	5.8	5.2		32	32	Crompton & Knowles	1.8	3.5
15	17	W. R. Grace	5.2	5.5		32	23	Williams Cos.	1.8	5.0
15	14	Monsanto	5.2	6.4		34	38	Reichhold Chemicals	0.6	1.6
17	16	PPG Industries	4.7	6.3		35	31	Celanese	0.2	3.6
17	25	Rohm & Haas	4.7	4.9		36	37	S. F. Goodrich	def	2.9
AVERAGE ^c									4.1%	5.6%

^a Ranking for 1981 is as it appeared in previous survey (C&EN, June 7, 1982, page 17). ^b After-tax income as a percentage of sales. ^c Average is for companies listed in previous survey. def = deficit.

Return on investment dropped to 3.1%

Rank ^a			Return on investment ^b			Rank ^a			Return on investment ^b	
1982	1981		1982	1981		1982	1981		1982	1981
1	1	Chemed	14.0%	15.1%		19	13	Essex Chemical	4.0	6.6
2	3	International Flavors	12.4	13.1		19	21	Liquid Air	4.0	5.2
3	2	Nalco Chemical	11.1	14.5		21	8	H. B. Fuller	3.8	7.9
4	5	Petrolite	10.8	11.0		22	26	Air Products	3.6	4.7
5	22	Monsanto	8.3	5.1		23	19	PPG Industries	3.5	5.3
6	16	Loctite	7.7	5.7		23	29	Witco Chemical	3.5	4.3
7	7	Great Lakes Chemical	6.7	8.5		25	24	American Cyanamid	3.2	4.8
8	4	Lubrizol	6.0	11.5		26	24	Hercules	3.0	4.8
9	9	First Mississippi	5.8	7.8		27	16	Crompton & Knowles	2.9	5.7
10	18	Ethyl	5.5	5.5		28	30	Olin	2.5	3.9
11	11	W. R. Grace	5.4	7.2		29	31	Pennwalt	2.4	3.7
12	14	International Minerals	4.9	6.1		30	33	Dow Chemical	2.3	3.6
13	35	Stepan Chemical	4.8	3.4		30	40	GAF	2.3	def
14	10	National Distillers	4.5	7.7		32	26	Union Carbide	2.2	4.7
15	19	FMC	4.4	5.3		33	36	Reichhold Chemicals	1.0	3.3
15	15	Stauffer Chemical	4.4	5.8		33	34	Williams Cos.	1.0	3.5
17	26	Rohm & Haas	4.3	4.7		35	37	Celanese	0.1	3.1
18	6	Freeport-McMoRan	4.2	8.8		36	38	B. F. Goodrich	def	2.7
AVERAGE ^c									3.1%	4.8%

^a Ranking for 1981 is as it appeared in previous survey (C&EN, June 7, 1982, page 17). ^b After-tax earnings as a percentage of current assets plus gross plant. ^c Average for 1981 is for companies listed in survey. def = deficit.

10th place in terms of overall profitability. One other mineral-dominated company, First Mississippi, was much more consistent. Its place on all four profitability rankings was high enough to give it sixth place in terms of overall profitability.

The profitability leaders are figured by adding their rankings. The lowest ranking is then considered to

represent the best overall profitability.

International Flavors, by this method, came in first. It scored first place in both profit margin and return on assets, second in return on investment, and fourth in return on stockholders' equity.

The second-best company in terms of overall profitability—Petrolite—

led in no category. However, it was fairly consistent in all of them with rankings of fifth in profit margin, fourth in return on investment, and second in return on assets and return on equity. Nalco Chemical, tied with Petrolite for second, placed fourth in profit margin and third in return on investment, return on assets, and return on equity.

Return on assets declined to 4.1% last year

Rank ^a			Return on assets ^b			Rank ^a			Return on assets ^b	
1982	1981		1982	1981		1982	1981		1982	1981
1	2	International Flavors	14.6%	15.3%		19	21	Air Products	4.9	6.7
1	3	Petrolite	14.6	14.1		20	13	Essex Chemical	4.7	7.6
3	1	Nalco Chemical	13.9	17.4		20	16	PPG Industries	4.7	7.1
4	5	Chemed	10.1	10.9		22	10	National Distillers	4.6	8.0
5	7	Great Lakes Chemical	8.1	10.6		23	30	Witco Chemical	4.5	5.3
6	28	Loctite	7.9	5.7		24	24	American Cyanamid	4.4	6.4
7	4	Lubrizol	7.4	13.7		25	20	Hercules	4.3	6.8
8	16	W. R. Grace	6.5	7.2		26	9	H. B. Fuller	4.2	8.6
9	12	International Minerals	6.3	7.8		27	28	Olin	3.9	5.7
9	19	Rohm & Haas	6.3	6.9		28	32	Pennwalt	3.2	4.7
11	16	Ethyl	6.2	7.2		29	27	Crompton & Knowles	3.0	6.0
12	8	First Mississippi	5.5	9.3		30	33	Dow Chemical	2.9	4.5
13	14	Stauffer Chemical	5.7	7.4		30	26	Union Carbide	2.9	6.2
14	37	Stepan Chemical	5.6	3.7		32	40	GAF	2.8	def
15	24	FMC	5.5	6.4		33	28	Williams Cos.	1.3	4.0
16	6	Freeport-McMoRan	5.4	10.8		34	35	Reichhold Chemicals	1.3	4.2
16	15	Monsanto	5.4	7.3		35	37	Celanese	0.2	4.8
18	22	Liquid Air	5.1	6.5		36	38	B. F. Goodrich	def	3.4
AVERAGE ^c									4.1%	6.2%

^a Ranking for 1981 is as it appeared in previous survey (C&EN, June 7, 1982, page 17). ^b After-tax income as a percentage of total assets. ^c Average is for companies listed in previous survey. def = deficit.

Return on stockholders' equity plummeted to 8.5%

Rank ^a			Return on equity ^b		Rank ^a			Return on equity ^b	
1982	1981		1982	1981	1982	1981		1982	1981
1	16	Chemed	33.6%	13.8%	19	7	Lubrizol	10.3	19.7
2	5	Petrolite	20.6	21.4	20	20	Witco Chemical	10.0	13.0
3	1	Nalco Chemical	19.1	24.2	21	27	Liquid Air	9.8	12.2
4	6	International Flavors	18.8	20.0	22	19	Monsanto	9.4	13.4
5	28	Stepan Chemical	16.7	12.1	23	20	PPG Industries	9.1	13.0
6	2	Essex Chemical	16.0	23.8	24	23	American Cyanamid	8.6	12.9
6	4	First Mississippi	16.0	21.5	25	20	Hercules	8.1	13.0
8	10	W. R. Grace	14.6	17.5	26	17	National Distillers	7.8	13.6
9	11	Great Lakes Chemical	13.6	16.5	26	29	Olin	7.8	11.7
10	36	Loctite	12.8	8.6	28	31	Dow Chemical	6.8	11.5
11	3	Freeport-McMoRan	12.3	22.5	29	40	GAF	6.7	def
12	13	International Minerals	12.1	15.6	29	35	Pennwalt	6.7	9.5
13	24	Ethyl	11.7	12.6	31	25	Union Carbide	6.0	12.3
14	12	Air Products	11.5	16.3	32	31	Crompton & Knowles	5.5	11.5
15	15	Stauffer Chemical	11.4	14.6	33	34	Williams Cos.	2.9	9.6
16	17	FMC	11.3	13.6	34	33	Reichhold Chemicals	2.8	9.6
17	25	Rohm & Haas	10.6	12.3	35	29	Celanese	0.4	11.7
18	9	H. B. Fuller	10.5	17.9	36	37	B. F. Goodrich	def	8.4
								AVERAGE ^c	8.5% 13.4%

^a Ranking for 1981 is as it appeared in previous survey (C&EN, June 7, 1982, page 17). ^b After-tax income as a percentage of year-end stockholders' equity. ^c 1981 average is for companies listed in previous survey. def = deficit.

Chemed led in the other two rankings, return on equity and return on investment, and it had fourth place in return on assets. However, its eleventh place in profit margin pulled it down so that it could do no better than fourth place in overall profitability.

Although in general, the smaller,

more specialized companies were the leaders in almost all categories, one large chemical company, W. R. Grace, managed a respectable performance in terms of overall profitability. Grace ranked 15th in profit margin, 11th in return on investment, and eighth in both return on assets and equity. This was enough to give it

ninth place in terms of overall performance.

A few other companies with sales of more than \$1 billion did well in one category. For instance, Monsanto was able to garner fifth place in return on investment, up from 22nd place in 1981. Stauffer Chemical, which consistently ranks high in profit margin, came in eighth in 1982, the same position as the year before, despite a decrease in its profit margin to 7.7% last year from 8.7% the year before.

Rohm & Haas was in the top 10 in return on assets, ranking ninth in that category, and Air Products came in 10th in the profit-margin ranking.

One other company with sales of more than \$1 billion—Ethyl—managed a 10th place in return on investment.

In general, the falling averages of the company samples were indicative of the way that the individual companies were going. Of the 36 companies surveyed, only seven had a better profit margin in 1982 than they did in 1981, but 29 fell. For return on investment, just four improved in 1982, 31 fell, and one stayed the same. The same number, four, had increases in return on assets, but 32 dropped. Four had improvements in return on equity, but 32 had decreases in their ratios. □

About C&EN's profitability rankings

C&EN's rankings of companies for profitability are based on 36 large chemical firms using nonrestated data.

Thus, the 1982 ratios are compared with ratios from data published for the end of 1981 and not restated in 1982 annual reports for 1981.

In addition, the averages that appear at the end of each listing are for the companies that appeared on the list for the respective years. In other words, the 1982 average is for the companies on the list this year. The average for 1981 is for the companies that appeared on a similar list last year (C&EN, June 7, 1982, page 17).

Also, the 1981 rankings are based on the list that was published last year. All of the companies that appear in the rankings this year were included in last year's list, which was made up of 40 companies. The four companies that

were dropped this year are Allied, Thiokol, Philip A. Hunt, and Akzona. Allied, after a series of acquisitions, does not have enough chemical sales as a percentage of total sales to make it comparable to the other companies on the list. Akzona was acquired by Akzo and no longer publishes financial data. Most of Philip A. Hunt's sales and earnings are reported through Olin, which would give the effect of double counting if the smaller company were also included. Thiokol has merged with Morton Norwich to make Morton-Thiokol. Although this company undoubtedly will be included in the future, no full-year numbers for the new company are available.

These four companies are still considered in the 1981 rankings, however. Thus, although 36 companies are ranked for 1982, some 1981 rankings go up to 40th place.

After 50 Years, Polyethylene Producers Face Grim Prospects

Global supply and demand are forecast to grow about 4% a year during 1980s, so many countries will continue to suffer from overcapacity

Dermot A. O'Sullivan, C&EN London

Polyethylene has come a long way since researchers at Imperial Chemical Industries in England made the first few grams of it 50 years ago. From something of a laboratory curiosity it has developed into a truly commodity product with global consumption running at about 40 billion lb annually. Its uses range from making toys, kitchen utensils, and packaging to sophisticated components of radar equipment and telephone cables. To mark polyethylene's golden jubilee, the Plastics & Rubber Institute of the U.K. organized a conference in London earlier this month.

The seemingly insatiable demand for products made from the plastic prompted companies in increasing numbers to go into production. So much so, that the polymer has become something of a victim of its own success. This is particularly the



Horton: too many producers

case in Western Europe where demand more than doubled in the past decade from 5.5 billion lb in 1970 to about 12 billion lb in 1979.

"Today the West European polyethylene industry is at a crossroads," Robert B. Horton, managing director of London-based BP Chemicals International, one of Europe's leading producers, told the 280 conference attendees. "The expectation of continued high growth rates has evaporated. Low growth prospects resulting from poor economic condi-

tions plus diminishing replacement opportunities are recognized by the industry. Western Europe now has too many producers as well as too much capacity.

"The combined effect has created an unprofitable industry where most companies fail to cover their cost of production. Respectable returns on capital employed are a long way from being achieved."

All the countries of Western Europe, except Denmark, Ireland, Luxembourg, and Switzerland, have polyethylene-making facilities. There are 17 producers of high-density polyethylene, 21 of low-density polyethylene. This, coupled with a decline in sales as the result of the economic slowdown, resulted in a fall in average plant capacity utilization rates to below 70% in 1980 and 1981.

"There are signs which give grounds for cautious optimism," Horton observes. "Management is adapting to a situation where cost-cutting and making existing assets work harder is the name of the game."

This action has taken the form of plant closures. These started in 1981, gaining momentum last year. The U.K. has led the field with a 34% capacity reduction. Belgium and the Netherlands, combined, and France cut capacity 13%; West Germany, 10%; Italy, 8%.

Largely as a result of these moves, western European polyethylene plant capacity utilization last year advanced to 72%. In Belgium and the Netherlands, where exports helped boost production levels, it was a respectable 84%; in the U.K., 78%. But in France, it remains a relatively low 69%; in West Germany it is 56%; and in Italy a dismal 46%. "There is still a lot of capacity which needs to be closed if a more acceptable supply/

Polyethylene global supply, demand to grow 4% per year

Billions of lb	Supply			Demand		
	1980	1980	Annual growth	1980	1980	Annual growth
Western Europe	23.10	19.14	1.9%	19.80	14.74	3.0%
North America	20.68	13.64	4.2	16.94	11.66	3.8
South America	3.96	1.76	8.4	5.06	2.86	5.9
Africa	1.32	0.44	11.6	1.76	1.10	4.8
Middle East	2.42	0.22	27.1	1.54	0.66	8.8
Pacific	10.56	6.38	5.2	11.88	6.60	6.1
WORLD TOTAL	62.04	41.58	4.1%	58.98	37.62	4.2%

Source: BP Chemicals International

SABIC building three polyethylene plants with partners

Company name	Location in Saudi Arabia	Partner (50% in all cases)	Product	Annual capacity (millions of lb)
Saudi Yanbu Petrochemical (YANPET)	Yanbu	Mobil Oil	Linear LDPE + HDPE	440 (LLDPE) + 198 (HDPE)
Al-Jubail Petrochemical (KEMYA)	Al-Jubail	Exxon	Linear LDPE	572
Eastern Petrochemical (SHARO)	Al-Jubail	Japanese consortium	Linear LDPE	286

demand balance is to be achieved," Horton comments.

Looking to the future, "our view is that there will be gross domestic product growth [in Western Europe] averaging 1.5% per year over the next five years. This will provide the main stimulus for increasing demand. I have in mind the construction, automotive, and service industries, [and] packaging, which is such a major part of the polyethylene industry."

Based on this premise, Horton believes demand in Western Europe will grow 3% a year on average for the decade as a whole, and local

supply capability will increase less than 2% a year. Some might view this projection as somewhat optimistic, particularly in light of the experience of the past two years. But it is more modest than the projection he makes for other areas of the world. For instance, he sees annual demand in North America growing about 4% a year, outpaced by growth in supply capability, largely a reflection of expected developments in Canada.

On the upper end of Horton's demand projection scale is the Middle East, where growth, he believes, might be close to 9% annually. Admittedly, this area is starting from a

much lower base than elsewhere. Nevertheless, even if the forecast materializes, it will fall far short of the 27% a year growth in production capability he foresees for the area.

West European polyethylene producers face two additional challenges in the immediate future. One is the emergence of linear LDPE, which, Horton expects, "is destined to be a major product of the future," that eventually will displace a large part of conventional polymer.

"With the development of linear LDPE, the industry now has a product that can overlap into market segments of both HDPE and LDPE," he says. "Its greater mechanical strength compared with LDPE has the effect of breaking down the traditional differentiation between HDPE and LDPE. A likely outcome could be promotion of polyethylene as a whole. Producers could provide a product tailored more closely to the customer, and not be inhibited by the split in polyethylene type."

The other challenge, of course, will come from new production units in Canada and Saudi Arabia. Understandably, therefore, attendees at the conference paid close attention to the comments of Abdulaziz Alzamil, managing director of Saudi Basic Industries Corp. (SABIC), who shared the platform with Horton.

SABIC has seven joint ventures for a variety of petrochemicals based on low-cost methane and ethane, both as energy and feedstock, that otherwise would be flared. Three of these ventures—together with Exxon, Mobil Oil, and a consortium of Japanese companies led by Mitsubishi—will begin making polyethylene in 1985. "We plan to produce 1.3 billion lb per year of linear LDPE, and 198 million lb of HDPE," Alzamil says. "These figures may increase," he adds, "since recent improvements in the [Union Carbide] Unipol process will enable us to expand production."

"In a world context, we will be producing about 3% of an expected world [LDPE] capacity of about 44 billion lb. Our output will equal 35% of Japan's capacity, 9% of Western Europe's, or 10% of the U.S.'s. Our HDPE production will be less than 1% of the 1986 world capacity of about 22 billion lb—15% of Japan's,

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International



Alzamil: an orderly market

6% of Western Europe's, or 4% of the
U.S.'s," he says.

"Even these figures overstate the
amount our polyethylenes will add
to the [global] market, because we
expect domestic and regional de-
mand to take increasing amounts of
our production," Alzamil says.
"Currently, Saudi Arabia consumes
110 million lb per year of polyethyl-
ene, a figure we expect to double by
1990. Moreover, some of our partners
will use production from their plants
in Saudi Arabia to replace production
of their obsolete plants, and will
market material through their sales
network.

"By 1986, approximately 15% of
our production will be consumed by
our partners' captive needs. Between
these requirements and Saudi Ara-
bia's internal and regional demand,
only 40% of our polyethylene is ex-
pected to appear on the developed
world's markets.

"We strongly believe that our
success depends on an orderly mar-
ket. We do not intend to disrupt
world markets. Our goal is to assume
our place as a new and responsible
producer of an established product.

"Saudi Arabian polyethylene will
be of commercial quality comparable
with the best in the world. We are
prepared to offer it on the same terms
as any other seller. But we must be
candid in saying that if protectionist
measures, or price manipulations, are
used to keep us out, we shall counter
with our own measures to obtain our
rightful place in the market." □

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Firings Up, But Handled Better

The latest report from the American Chemical Society's Committee on Professional Relations (CPR) on mass firings of chemical professionals contains both good news and bad news. The good news is that employers having such multiple terminations are complying more closely than they have in the past to ACS standards that spell out how terminees should be treated. The bad news is a sudden upsurge in the number of mass firings.

This committee, working through its Subcommittee on Professional Standards, over the past eight years has examined 139 multiple terminations of chemists and chemical engineers and compared them with seven standards contained in the society's Professional Employment Guidelines (PEG).

The latest report covers 12 terminations that occurred between the summer of 1981 and the end of 1982. Overall compliance with the standards averaged 56%, up from an average of 42% for the 16 earlier reports of this type and up very sharply from the 31% for the previous report which covered seven layoffs between August 1980 and April 1982.

CPR reports that when the latest report was finalized at the end of March, investigation of an additional

32 multiple terminations was in progress. This was the largest number under active investigation at any one time since the committee started compiling records in 1969.

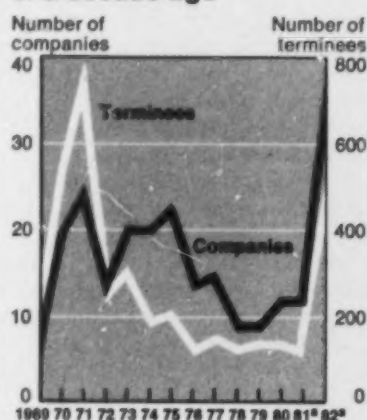
The committee estimates that it will end up investigating close to 40 terminations that occurred in 1982 involving more than 500 terminees. This will represent a very major increase from 12 layoffs involving 134 terminees in 1980, the latest year for which complete data are available.

CPR defines a multiple termination as a situation in which a company or institution terminates the employment of three or more chemists and/or chemical engineers within a six-month period for reasons other than continuing evidence of documented inadequate performance, completion of a contract, or cause.

This and all previous CPR multiple termination reports, which contain detailed information from both employers and terminees, can be obtained on request from American Chemical Society, Office of Professional Relations, 1155-16th St., N.W., Washington, D.C. 20036.

The seven PEG standards on multiple terminations are concerned with advance notice, severance pay, assistance in finding new jobs, pen-

Layoffs surge to levels of a decade ago



* Estimates based on investigations already completed and still in progress.

sion vesting, employee service, protection plans, and rehire privileges.

In the latest report, half of the 12 employers investigated met the standard of a minimum of four weeks' advance notice. This was up from 37% compliance for the earlier reports. Five of the 12 met the standard of a minimum of two weeks of severance pay for every year of service. This standard was met an average of only 10% of the time in the earlier reports.

In the latest report eight of the 12 employers met the standard of either making an effort to place terminees in other positions within the organization or helping them to find jobs elsewhere. For instance, all six Manville terminees who responded to a questionnaire stated that they received assistance in preparing resumes. Five of them also got help in actually finding a job and two also received retraining.

Compliance with the standard calling for full pension vesting after 10 years of service has always been high—an average of 79%. This time all 12 employers complied. In the layoff at Occidental Research Corp.,

ACS guidelines

Advance notice. Four-week minimum.

Severance pay. Minimum is two weeks per year of service. Additional notice may be given, by mutual agreement, in lieu of severance pay.

Assistance. Efforts should be made to place terminnee in another position within the organization, or terminnee should be given assistance to find employment elsewhere.

Pension plan vesting. Full vesting after 10-years' service.

Employee service. Those with minimum of 10-years' service should not be terminated except for continued evidence of previously documented inadequate performance or cause.

Employee protection plans. Should be extended for a minimum of one month, plus two weeks for each year of employee service, following termination at same rate of contribution as before. Employee would have additional 31-day grace period.

Rehire privileges. Rehire privileges should be carefully explained to terminees.

employment dates were adjusted for terminees who were close to meeting the company's standard of fully vested pension rights after five "credited" years. Depending on the date of hire, this means as little as three years and seven months of service. At PPG Industries, fired employees who were over age 55 were entitled to receive an immediate or deferred pension benefit.

The PEG guideline states that such employees should not be terminated except for continued evidence of previously documented inadequate performance or cause. However, eight of the 12 firings covered in the new report involve those with more than 10 years of service—as do 72% of the terminations investigated earlier.

The sharpest turnaround in compliance has come in the standard that states that employee protection plans should be extended after termination for a minimum of one month, plus two weeks for each year of service, at the same rate of contribution as be-

fore. In the previous report all seven employers failed to comply. In the new report this standard was complied with in 11 of the 12 cases. In the Armak termination, group insurance plans were continued at company expense while severance pay was being paid. This continued until employees found jobs that provided coverage. After termination pay ran out, former employees could con-

tinue coverage for up to one year from their termination date by paying the company's group rate.

The seventh standard, concerned with rehire privileges, is complied with infrequently. In the new report only BASF Wyandotte met this standard. Also, at PPG Industries, terminees were told their qualifications would be reviewed when openings occur. □

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The American Chemical Society
1155 16th St., N.W.
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EOE/MF

Employer compliance with ACS guidelines

These employers provided information	Approximate number of terminees	Advance notice	Severance pay	Assistance	Pension vesting	Employee service	Protection plans	Rehire privileges
Alkzona, Armak (Chicago, Ill.) ^{a,b}	16							
Celanese (Corpus Christi, Tex.) ^{a,b}	17							
Celanese (Summit, N.J.) ^{a,b}	29							
Ethyl (Ferndale, Mich.) ^a	5							
ITT Rayonier (Whippany, N.J.) ^{a,b}	34							
Manville (Denver, Colo.) ^a	11							
Occidental Oil Shale (Grand Junction, Colo.) ^{a,b,c}	5							
Occidental Research (Irvine, Calif.) ^{a,b}	70							
PPG Industries (Corpus Christi, Tex.) ^{a,b}	26							

These employers provided no information

Air Products & Chemicals/Steamer-Roger Engineering (Denver, Colo.)	4							
BASF Wyandotte (Parsippany, N.J.)	4							
Jim Walter Corp. (St. Petersburg, Fla.)	6							

□ Employer met guideline standard

▨ Employer did not meet guideline standard

■ Employer was substantially below guideline standard

This is defined as follows:

- Advance notice—less than 2 weeks.
- Assistance—no assistance rendered.
- Severance pay—less than 1 week per year of service.
- Employee service—more than 40% of terminees had 10 or more years of service.
- Protection plans—no continuation of protection plans.

^a Rating on assistance based on information from the terminees. ^b Rating on protection plans based on information from the terminees. ^c Rating on severance pay based on information from the terminees.